

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: SHAPER

Report Number: P316057

Luminaire Tested: **ShSe-SQR-2-L35-80-UNV-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P316057
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1811-037-1)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: ShSe-SQR-2-L35-80-UNV-STD
Description: SHAPER SENSE SQUARE
LIGHT LEVEL 2
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

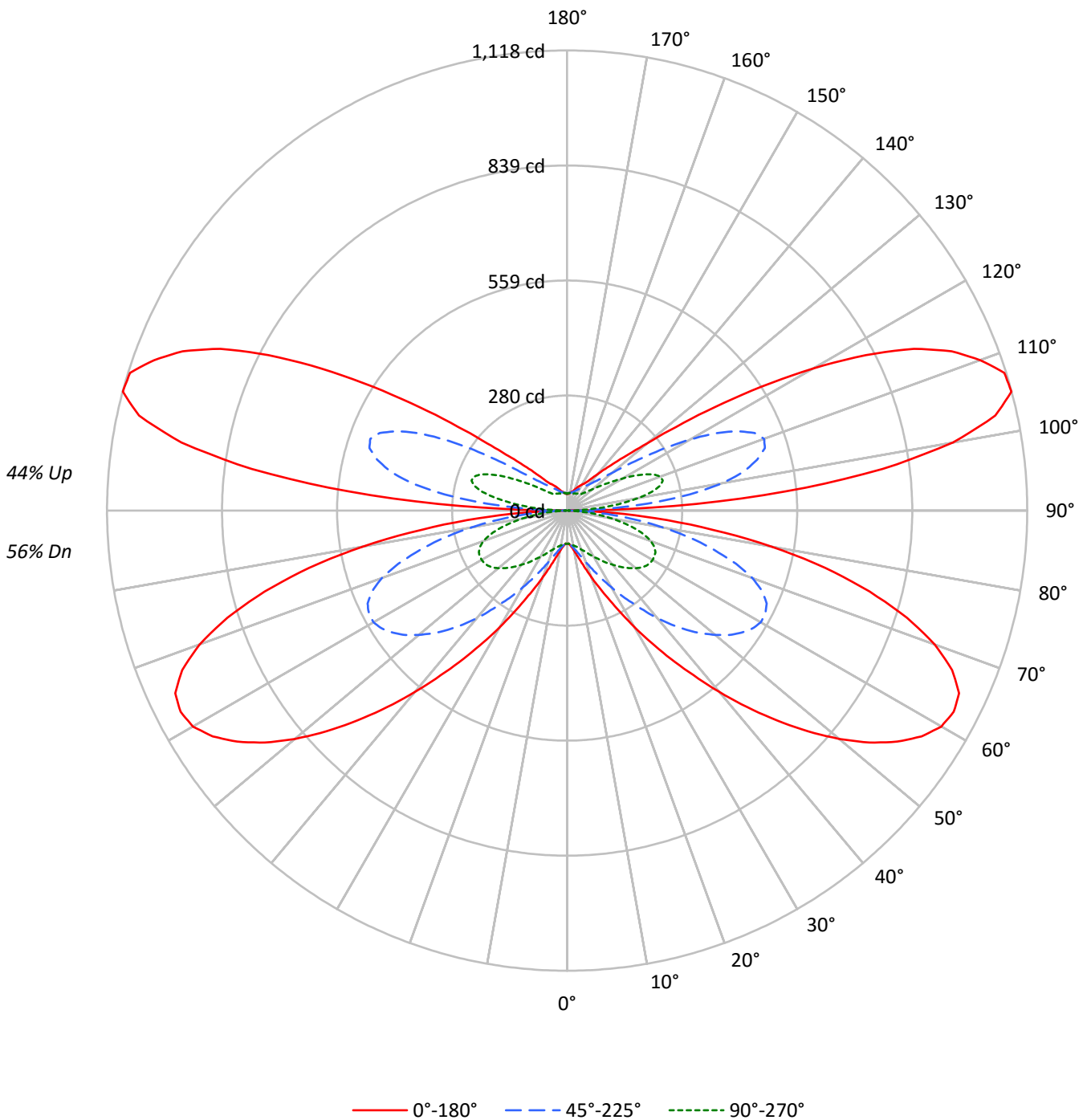
Lumens per Lamp: N/A
Luminaire Lumens: 4101.4 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 5.4 / 3.01 / 3.76
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 38.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P316057
CATALOG NUMBER: ShSe-SQR-2-L35-80-UNV-STD

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56				
1	96	90	85	80	89	84	79	75	71	68	65	60	57	55	49	48	46	41				
2	85	75	67	61	78	70	63	57	59	53	49	49	45	41	40	37	34	29				
3	76	64	55	47	69	59	51	44	49	43	38	41	36	32	33	29	26	21				
4	68	55	45	38	62	50	42	35	42	35	30	35	29	25	28	23	20	16				
5	61	48	38	31	56	44	35	28	37	30	24	30	24	20	24	19	16	12				
6	56	42	32	25	51	38	30	24	32	25	20	26	21	16	21	16	13	10				
7	51	37	28	21	47	34	26	20	29	22	17	23	18	14	19	14	11	8				
8	47	33	24	18	43	31	23	17	26	19	14	21	16	12	17	12	9	6				
9	44	30	21	16	40	28	20	15	23	17	12	19	14	10	15	11	8	5				
10	41	27	19	14	37	25	18	13	21	15	11	17	12	9	14	10	7	4				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	216	216	216
5°	228	224	221
10°	272	253	234
15°	353	303	254
20°	491	382	289
25°	695	501	336
30°	1015	668	402
35°	1444	894	492
40°	2018	1200	602
45°	2745	1560	746
50°	3613	1966	912
55°	4592	2427	1098
60°	5648	2923	1290
65°	6691	3407	1508
70°	7476	3770	1703
75°	7911	3849	1798
80°	7806	3671	1688
85°	6681	2983	1303



TEST NUMBER: P316057

CATALOG NUMBER: ShSe-SQR-2-L35-80-UNV-STD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.2	0.2
10°-20°	32.0	0.8
20°-30°	81.7	2.0
30°-40°	181.3	4.4
40°-50°	337.5	8.2
50°-60°	502.6	12.3
60°-70°	579.8	14.1
70°-80°	445.8	10.9
80°-90°	134.0	3.3
90°-100°	275.1	6.7
100°-110°	614.7	15.0
110°-120°	504.5	12.3
120°-130°	229.7	5.6
130°-140°	87.3	2.1
140°-150°	44.5	1.1
150°-160°	25.5	0.6
160°-170°	13.1	0.3
170°-180°	4.1	0.1
0°-30°	121.9	3.0
0°-40°	303.3	7.4
0°-60°	1143.3	27.9
0°-90°	2302.9	56.1
90°-120°	1394.3	34.0
90°-150°	1755.8	42.8
90°-180°	1798.0	43.8
0°-180°	4101.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	80	80	80	80	80	
5°	84	84	83	82	82	9
15°	127	122	109	97	91	38
25°	234	215	169	128	113	113
35°	440	389	272	182	150	282
45°	721	623	410	248	196	561
55°	979	833	517	299	234	872
65°	1051	890	535	305	237	1022
75°	761	651	370	220	173	791
85°	216	172	97	61	42	236
90°	3	4	3	1	1	48
95°	534	412	196	118	87	520
105°	1118	939	478	295	234	1139
115°	930	772	456	264	208	905
125°	437	358	223	138	112	408
135°	165	143	104	74	63	135
145°	86	84	69	54	50	57
155°	64	60	54	49	46	30
165°	48	48	46	45	44	14
175°	41	42	42	42	42	4
180°	41	41	41	41	41	



TEST NUMBER: P316057

CATALOG NUMBER: ShSe-SQR-2-L35-80-UNV-STD

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3
2.5°	80.3	80.3	80.3	80.3	80.3	81.7	80.3	80.3	80.3	80.3	81.7
5°	84.4	84.4	84.4	84.4	83.0	84.4	83.0	83.0	83.0	83.0	83.0
7.5°	89.9	89.9	89.9	89.9	89.9	89.9	88.5	88.5	88.5	87.1	87.1
10°	99.4	99.4	99.4	99.4	98.0	98.0	96.6	95.3	93.9	93.9	92.5
12.5°	111.6	111.6	110.3	110.3	108.9	108.9	106.1	104.8	103.5	102.1	99.4
15°	126.6	126.6	126.6	125.2	122.5	122.5	119.8	117.1	114.4	111.6	108.9
17.5°	147.0	147.0	145.7	144.3	140.2	138.8	136.1	132.1	129.3	123.9	119.8
20°	171.5	171.5	168.8	167.4	162.0	160.6	156.6	151.1	145.7	140.2	133.4
22.5°	200.1	201.5	197.4	193.3	187.9	185.2	181.0	174.2	166.1	157.9	149.7
25°	234.1	235.5	231.4	226.0	217.8	215.1	209.6	200.1	189.2	179.7	168.8
27.5°	276.3	276.3	270.9	264.1	253.2	250.5	242.3	231.4	217.8	204.2	190.5
30°	326.7	326.7	319.9	310.4	294.0	291.3	280.4	265.4	249.1	232.7	215.1
32.5°	379.8	377.1	370.2	360.7	343.0	337.6	326.7	306.3	284.5	262.7	243.7
35°	439.6	439.6	430.1	417.9	396.2	389.3	374.3	352.6	328.0	296.8	272.2
37.5°	503.7	502.3	494.2	477.8	452.0	443.8	426.0	398.8	368.9	337.6	304.9
40°	574.5	573.1	562.2	543.1	513.2	500.9	481.8	447.9	413.8	375.7	341.6
42.5°	647.9	646.6	633.0	609.8	575.8	560.9	539.0	500.9	460.1	416.5	375.7
45°	721.4	721.4	705.1	677.9	642.5	623.4	597.6	554.0	506.4	457.4	409.8
47.5°	793.6	792.2	773.1	743.3	703.7	682.0	652.0	604.4	551.3	494.2	441.0
50°	863.0	860.3	838.5	805.8	760.9	739.2	707.8	652.0	592.1	529.5	469.6
52.5°	925.7	922.9	898.4	863.0	812.7	789.5	755.5	694.2	630.3	560.9	496.8
55°	978.8	976.0	950.2	912.1	858.9	833.1	795.0	728.3	660.2	586.7	517.3
57.5°	1021.0	1018.2	992.4	950.2	894.3	865.8	824.9	752.8	682.0	605.8	533.6
60°	1049.5	1048.2	1022.3	976.0	918.8	887.5	845.3	767.7	694.2	618.0	543.1
62.5°	1059.0	1060.4	1035.9	988.3	928.3	897.1	853.5	774.5	699.7	619.4	543.1
65°	1050.9	1054.9	1031.8	980.1	921.6	890.2	848.0	769.1	692.8	611.2	535.0
67.5°	1012.7	1023.6	1001.9	948.8	891.6	863.0	824.9	747.3	672.5	590.8	513.2
70°	950.2	965.1	944.7	887.5	838.5	815.3	780.0	706.5	635.7	554.0	479.2
72.5°	865.8	884.8	864.4	801.7	762.3	744.6	713.3	643.9	578.5	502.3	430.1
75°	760.9	778.6	758.2	697.0	665.6	650.6	624.8	563.6	507.8	438.4	370.2
77.5°	642.5	654.8	641.1	582.6	555.4	543.1	521.4	464.2	420.6	363.5	307.6
80°	503.7	511.8	502.3	450.6	431.5	422.0	402.9	354.0	324.0	279.1	236.9
82.5°	356.6	363.5	356.6	315.8	302.2	292.7	280.4	239.6	220.5	194.7	166.1
85°	216.4	211.0	205.5	181.0	181.0	171.5	160.6	134.7	128.0	114.4	96.6
87.5°	85.8	80.3	77.6	69.4	70.8	65.3	61.3	47.7	47.7	44.9	38.1
90°	2.7	2.7	4.1	2.7	4.1	4.1	4.1	2.7	2.7	2.7	2.7
92.5°	260.0	251.8	236.9	228.7	201.5	187.9	172.9	143.0	126.6	106.1	88.5
95°	533.6	526.8	509.1	464.2	432.9	412.4	379.8	318.5	283.2	242.3	196.0
97.5°	773.1	781.4	752.8	675.2	641.1	612.6	578.5	486.0	437.0	371.6	300.8
100°	951.5	969.2	939.3	834.4	795.0	770.5	736.4	624.8	560.9	472.3	382.5
102.5°	1065.8	1091.7	1059.0	933.8	895.7	879.4	843.9	728.3	652.0	544.5	441.0
105°	1117.6	1152.9	1119.0	988.3	954.2	939.3	906.6	789.5	706.5	590.8	477.8
107.5°	1113.5	1155.7	1127.1	1015.5	974.6	954.2	922.9	808.6	722.8	609.8	503.7
110°	1068.5	1110.7	1087.6	1004.6	954.2	922.9	888.9	782.7	701.1	600.3	509.1



TEST NUMBER: P316057

CATALOG NUMBER: ShSe-SQR-2-L35-80-UNV-STD

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1011.4	1034.6	1012.7	954.2	897.1	858.9	819.4	725.5	649.3	569.0	492.8
115°	929.7	935.2	914.7	867.1	815.3	771.9	732.3	645.3	581.2	521.4	456.0
117.5°	818.1	812.7	792.2	758.2	714.7	675.2	635.7	554.0	506.4	462.8	407.0
120°	690.1	680.6	653.4	635.7	601.7	564.9	528.2	456.0	426.0	393.4	345.7
122.5°	559.5	544.5	517.3	503.7	484.6	457.4	428.8	371.6	347.1	319.9	281.8
125°	437.0	423.4	396.2	386.6	378.4	358.0	341.6	302.2	276.3	254.6	223.2
127.5°	333.5	322.6	294.0	289.9	288.6	279.1	268.2	241.0	221.9	201.5	175.6
130°	253.2	245.0	227.4	226.0	224.6	219.1	212.4	193.3	179.7	162.0	141.6
132.5°	201.5	196.0	186.5	182.4	179.7	175.6	170.2	156.6	145.7	133.4	119.8
135°	164.7	162.0	156.6	152.5	147.0	143.0	137.5	128.0	119.8	111.6	103.5
137.5°	137.5	137.5	134.7	130.7	125.2	119.8	115.7	107.5	102.1	96.6	92.5
140°	115.7	117.1	115.7	114.4	108.9	103.5	99.4	91.2	88.5	87.1	83.0
142.5°	99.4	100.8	100.8	99.4	95.3	92.5	89.9	83.0	81.7	78.9	76.3
145°	85.8	88.5	88.5	88.5	87.1	84.4	81.7	78.9	76.3	73.5	69.4
147.5°	77.6	78.9	80.3	80.3	78.9	77.6	76.3	73.5	70.8	68.1	65.3
150°	73.5	73.5	73.5	73.5	72.2	72.2	70.8	68.1	66.7	63.9	61.3
152.5°	68.1	68.1	68.1	66.7	66.7	65.3	63.9	62.7	61.3	59.9	58.6
155°	63.9	63.9	62.7	61.3	61.3	59.9	58.6	57.2	57.2	55.8	54.4
157.5°	58.6	58.6	57.2	57.2	55.8	55.8	54.4	53.1	53.1	51.7	51.7
160°	54.4	54.4	53.1	53.1	51.7	51.7	51.7	50.3	50.3	49.0	49.0
162.5°	50.3	50.3	50.3	50.3	49.0	49.0	49.0	47.7	49.0	47.7	47.7
165°	47.7	47.7	47.7	47.7	47.7	47.7	47.7	46.3	46.3	46.3	46.3
167.5°	46.3	46.3	44.9	46.3	46.3	44.9	44.9	44.9	44.9	44.9	44.9
170°	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	44.9	43.6	43.6
172.5°	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	43.6	43.6	43.6
175°	40.8	40.8	40.8	40.8	42.2	42.2	42.2	42.2	42.2	42.2	42.2
177.5°	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	42.2	42.2	42.2
180°	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8



TEST NUMBER: P316057

CATALOG NUMBER: ShSe-SQR-2-L35-80-UNV-STD

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3
2.5°	81.7	80.3	80.3	80.3	80.3	81.7	80.3	80.3	80.3	80.3
5°	83.0	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7
7.5°	85.8	85.8	84.4	84.4	84.4	84.4	83.0	83.0	83.0	83.0
10°	91.2	89.9	88.5	88.5	87.1	87.1	85.8	85.8	85.8	85.8
12.5°	98.0	95.3	93.9	92.5	91.2	91.2	89.9	88.5	88.5	88.5
15°	106.1	102.1	100.8	98.0	96.6	95.3	93.9	92.5	91.2	91.2
17.5°	115.7	111.6	107.5	104.8	102.1	102.1	98.0	96.6	95.3	95.3
20°	128.0	122.5	117.1	111.6	110.3	108.9	104.8	102.1	100.8	100.8
22.5°	141.6	134.7	128.0	121.1	118.4	117.1	111.6	108.9	107.5	106.1
25°	157.9	148.3	140.2	132.1	128.0	126.6	119.8	117.1	114.4	113.0
27.5°	176.9	164.7	153.8	144.3	140.2	136.1	129.3	125.2	122.5	121.1
30°	198.8	182.4	168.8	157.9	152.5	148.3	140.2	134.7	130.7	129.3
32.5°	221.9	202.8	186.5	172.9	166.1	160.6	151.1	144.3	140.2	138.8
35°	247.7	224.6	205.5	189.2	182.4	175.6	164.7	155.2	152.5	149.7
37.5°	274.9	247.7	226.0	206.9	197.4	190.5	176.9	167.4	163.3	160.6
40°	304.9	272.2	246.4	224.6	215.1	205.5	191.9	179.7	175.6	171.5
42.5°	336.2	298.1	268.2	242.3	231.4	221.9	205.5	193.3	186.5	183.8
45°	366.2	325.4	288.6	260.0	247.7	236.9	219.1	205.5	198.8	196.0
47.5°	392.0	347.1	309.0	276.3	262.7	251.8	231.4	217.8	211.0	206.9
50°	416.5	367.6	328.0	291.3	276.3	264.1	243.7	228.7	221.9	217.8
52.5°	438.4	385.2	344.4	306.3	288.6	274.9	254.6	238.2	231.4	227.4
55°	454.6	400.2	356.6	317.1	299.4	284.5	262.7	245.0	238.2	234.1
57.5°	468.2	409.8	364.8	325.4	306.3	291.3	268.2	250.5	242.3	238.2
60°	475.1	416.5	367.6	329.4	310.4	295.4	270.9	253.2	245.0	239.6
62.5°	476.4	416.5	367.6	328.0	310.4	295.4	270.9	253.2	245.0	239.6
65°	469.6	409.8	359.3	321.3	304.9	291.3	266.8	249.1	242.3	236.9
67.5°	452.0	393.4	344.4	309.0	292.7	280.4	255.9	239.6	234.1	228.7
70°	424.7	368.9	319.9	287.2	274.9	262.7	239.6	224.6	220.5	216.4
72.5°	383.8	334.9	288.6	261.3	250.5	238.2	216.4	202.8	201.5	197.4
75°	336.2	292.7	251.8	230.0	220.5	209.6	187.9	178.3	176.9	172.9
77.5°	279.1	245.0	209.6	193.3	185.2	175.6	155.2	148.3	145.7	141.6
80°	217.8	191.9	164.7	149.7	145.7	136.1	119.8	115.7	113.0	108.9
82.5°	153.8	134.7	115.7	106.1	103.5	96.6	84.4	81.7	77.6	74.9
85°	91.2	80.3	69.4	62.7	61.3	57.2	49.0	49.0	44.9	42.2
87.5°	34.1	31.3	25.9	24.5	23.1	21.7	20.5	20.5	17.7	16.3
90°	2.7	2.7	2.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4
92.5°	76.3	61.3	57.2	50.3	49.0	47.7	43.6	42.2	40.8	38.1
95°	178.3	152.5	133.4	119.8	118.4	113.0	98.0	95.3	88.5	87.1
97.5°	273.6	238.2	205.5	187.9	182.4	172.9	147.0	144.3	140.2	133.4
100°	356.6	310.4	262.7	242.3	235.5	221.9	189.2	185.2	183.8	176.9
102.5°	415.2	360.7	304.9	280.4	273.6	257.3	220.5	216.4	216.4	211.0
105°	449.2	390.7	329.4	306.3	295.4	279.1	241.0	238.2	239.6	234.1
107.5°	464.2	401.5	339.0	314.4	304.9	288.6	254.6	249.1	249.1	243.7
110°	457.4	394.8	332.1	310.4	299.4	285.8	258.6	249.1	246.4	241.0



TEST NUMBER: P316057

CATALOG NUMBER: ShSe-SQR-2-L35-80-UNV-STD

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	435.6	375.7	322.6	295.4	285.8	273.6	251.8	239.6	231.4	228.7
115°	402.9	347.1	302.2	273.6	264.1	253.2	234.1	221.9	212.4	208.3
117.5°	356.6	309.0	272.2	246.4	236.9	226.0	211.0	200.1	189.2	183.8
120°	300.8	262.7	236.9	212.4	202.8	193.3	182.4	172.9	162.0	156.6
122.5°	243.7	217.8	198.8	178.3	168.8	159.3	151.1	144.3	137.5	132.1
125°	193.3	175.6	162.0	145.7	137.5	129.3	123.9	119.8	115.7	111.6
127.5°	151.1	141.6	130.7	118.4	111.6	104.8	100.8	99.4	96.6	95.3
130°	125.2	115.7	107.5	98.0	92.5	88.5	84.4	83.0	81.7	80.3
132.5°	107.5	99.4	92.5	85.8	81.7	77.6	74.9	72.2	70.8	70.8
135°	95.3	87.1	81.7	76.3	73.5	70.8	68.1	65.3	62.7	62.7
137.5°	85.8	78.9	73.5	69.4	66.7	65.3	62.7	59.9	57.2	57.2
140°	77.6	72.2	66.7	63.9	62.7	59.9	58.6	55.8	53.1	51.7
142.5°	70.8	65.3	61.3	58.6	57.2	57.2	55.8	53.1	51.7	50.3
145°	65.3	61.3	57.2	55.8	54.4	54.4	53.1	51.7	50.3	50.3
147.5°	61.3	57.2	54.4	53.1	53.1	51.7	51.7	50.3	49.0	49.0
150°	58.6	55.8	53.1	51.7	51.7	50.3	50.3	49.0	49.0	47.7
152.5°	55.8	54.4	51.7	50.3	50.3	49.0	49.0	47.7	47.7	46.3
155°	53.1	51.7	50.3	49.0	49.0	47.7	47.7	46.3	46.3	46.3
157.5°	50.3	50.3	49.0	47.7	47.7	46.3	46.3	44.9	44.9	44.9
160°	49.0	47.7	47.7	46.3	46.3	44.9	44.9	44.9	43.6	43.6
162.5°	47.7	46.3	46.3	46.3	44.9	44.9	44.9	43.6	43.6	43.6
165°	46.3	46.3	44.9	44.9	44.9	44.9	44.9	43.6	43.6	43.6
167.5°	44.9	44.9	44.9	44.9	44.9	43.6	43.6	43.6	43.6	43.6
170°	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6
172.5°	43.6	43.6	43.6	43.6	43.6	42.2	43.6	43.6	43.6	43.6
175°	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
177.5°	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
180°	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8

(END OF REPORT)